The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES B. ARMSTRONG and CHRISTOPHER W. B. GOODE

Appeal 2007-0031
Application 09/447,472
Technology Center 2600

Decided: March 2, 2007

Before KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO, and JOSEPH L. DIXON, *Administrative Patent Judges.*

DIXON, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the Examiner's final rejection of claims 1-9, 19 and 21-24, which are all of the claims pending in this application. Claims 10-18 and 20 have been canceled.

We AFFIRM.

BACKGROUND

Appellants' invention relates to a method and apparatus for hierarchical distribution of video content for an interactive information distribution system. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

> 1. In an interactive information distribution system including a network of provider equipment and subscriber equipment, apparatus comprising:
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> a plurality of servers coupled to respective subscriber equipment, each of said servers having a primary storage partition for storing frequently requested video assets, each of said servers having a secondary storage partition for storing a portion of infrequently requested video assets, said infrequently requested video assets being divided and selectively distributed amongst said secondary partitions of said plurality of servers; and
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> a manager, coupled to each of said plurality of servers for routing video assets between said servers in response to video asset requests, and for migrating video assets between storage partitions in response to a video asset request rate traversing a threshold rate.

PRIOR ART

The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

Ueno	US 6,438,596 B1	Aug. 20, 2002
Kenner	US 6,269,394 B1	Jul. 31, 2001
Kikinis	US 6,163,795	Dec. 19, 2000
Hokanson	US 6,094,680	Jul. 25, 2000

REJECTIONS

Claims 1-6, 19, 22, and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno in view of Hokanson. Claims 7-9 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno and Hokanson as applied to claims 6 and 23 above, and further in view of Kikinis. Claim 21 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno and Hokanson as applied to claim 19 above, and further in view of Kenner.

Additionally we note that claims 21-24 are improper dependent claims that depend from canceled claim 20. The Examiner should correct the deficiency in any future prosecution. We will treat the claims as if they depend directly from independent claim 19.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and Appellants regarding the above-noted rejections, we make reference to the Examiner's Answer (mailed Apr. 17, 2006) for the reasoning in support of the rejection, and to Appellants' Brief (filed Jan. 10, 2006) and Reply Brief (filed Jun. 16, 2006) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to Appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by Appellants and the Examiner. As a consequence of our review, we make the determinations that follow.

Appellants main arguments are that neither Ueno nor Hokanson teaches or suggests "partitioning of [storage on] servers" and "said infrequently requested video assets being divided and selectively distributed amongst said secondary partitions of said plurality of servers" (Reply Br. 2). Appellants additionally argue that even if the combination were to teach or suggest the partitioning of (storage on) servers, the combination of Ueno and Hokanson fails to teach or suggest "said infrequently requested video assets being divided and selectively distributed amongst said secondary partitions of said plurality of servers" (Reply Br. 3). We cannot agree with Appellants.

From our review of the teachings of Ueno and Hokanson, we find that Hokanson alone teaches and suggests the invention in independent claim 1 as follows:

> In an interactive information distribution system including a network of provider equipment [24, 26, 28] and subscriber equipment 42 [see Hokanson at Figure 1; col. 4, ll. 47-62], apparatus comprising:
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> a plurality of servers [30, 34, 38] [see Hokanson at Figure 1; col. 2, ll. 62-67; col. 4, ll. 47-62] coupled to respective subscriber equipment [42], each of said servers [30, 34, 38] having a primary storage [32, 36, 40] [see Hokanson at Figure 1; col. 2, ll. 10-28, 62-67; col. 3, ll. 1-31; col. 4, ll. 47-62, col. 9, ll. 16-67] partition for storing frequently requested video

> assets, each of said servers having a secondary storage partition [32, 36, 40] for storing a portion of infrequently requested video assets, said infrequently requested video assets being divided and selectively distributed amongst said secondary partitions of said plurality of servers; and
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> a manager [70, 72], [see Hokanson at Figure 2; col. 2, ll. 10-28, 62-67; col. 3, ll. 16-31; col. 6, ll. 30-62, col. 9, ll. 16-67] coupled to each of said plurality of servers for routing video assets between said servers in response to video asset requests, [col. 9, ll. 61-67] and for migrating video assets between storage partitions [col. 9, ll. 61-67] in response to a video asset request rate traversing a threshold rate [col. 9, ll. 43-47, defined cost/availability balance].

We find that Hokanson teaches the hierarchical use of various mediums for storage of the video assets where each of the video assets are prioritized within a storage hierarchy. We find this hierarchical structure to be a partitioning of the storage between primary and secondary partitions. Furthermore, we find that it would have been obvious to one skilled in the art at the time of the invention to partition a single medium into multiple partitions which may have varied access times for retrieval where the primary partition would have been the one with the greatest accessibility.

Additionally, we find that the language of independent claim 1 merely requires that "said infrequently requested video assets being divided and selectively distributed amongst said secondary partitions of said plurality of servers" as a set distribution. We find that the infrequently requested video assets in Hokanson are divided between the various servers and sites and that the video assets had been selectively distributed amongst said secondary partitions of said

plurality of servers. We find no limitation in independent claim 1 which requires the manager to perform the selective management of all of the secondary partitions in a dynamic manner.

Here, we find that the language of independent claim 1 merely requires that the manager is coupled to the servers, which we find is met here with the coupling through the network and routing the video assets between servers. Hokanson also teaches that the individual server would migrate video assets between at least its own storage partitions. (Hokanson, col. 3, ll. 17-32.) Therefore, we find that Hokanson teaches and fairly suggests the invention as recited in independent claim 1.

As noted above, Hokanson does teach all the limitations of claim 1. While this is, in effect, a holding that claim 1 is anticipated under 35 U.S.C. § 102(b), affirmance of the 35 U.S.C. § 103 rejection is appropriate, since it is well settled that a disclosure that anticipates under 35 U.S.C. § 102 also renders the claim unpatentable under 35 U.S.C. § 103, for "anticipation is the epitome of obviousness." Jones v. Hardy, 727 F.2d 1524, 1529, 220 USPQ 1021, 1025 (Fed. Cir. 1984). See also In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re Pearson, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974). Thus, we sustain the Examiner's rejection of appealed claim 1 under 35 U.S.C. § 103.

Additionally, we find that it would have been obvious to one skilled in the art at the time of the invention to have combined the teachings of Ueno with respect to implementation of an interactive information distribution system on a larger network of servers as described in Ueno with those of Hokanson. Alternatively, if the various teachings within Hokanson are viewed as different teachings so as to require a motivation, we find that it would have been obvious to one skilled in the art at the time of the invention to have combined the teachings of the single server into those of the LAN as shown in Figure 4 since this would have been the logical extension of the smaller system into the larger system.

With this set forth above, we find that the Examiner has established a prima facie of obviousness over the combination of Ueno and Hokanson, and we will address Appellants arguments.

Appellants argue that Ueno is devoid of teachings with respect to partitioning servers and dividing and selectively distributing infrequently requested video assets (Br. 11). While we agree with Appellants that Ueno is lacking in many of the teachings of the express language of independent claim 1, Appellants' arguments are not commensurate with that express language of independent claim 1.

Specifically, the language of independent claim 1 requires a primary and a secondary "storage partition" rather than a partitioned server and "said infrequently requested video assets being divided and selectively distributed amongst said secondary partitions of said plurality of servers" rather than an active step of "dividing" and

"distributing" as argued by Appellants. The storage portion of the claimed system is drafted as static and the manager portion of the claimed system is dynamic as with "routing" and "migrating" of the video assets. Therefore, we find that the Hokanson teaches these respective static and dynamic claim limitations.

Appellants argue that Ueno is devoid of any teaching or suggestion of any device partitioning much less partitioning of servers into first second storage partitions (Br. 12-13). While we agree that Ueno does not disclose a partitioned storage on a single server, we find that Hokanson clearly teaches this limitation, and we find that Ueno would have suggested a similar configuration partitioned storage on individual servers rather than server to server partition.

Appellants argue that Hokanson teaches partitioning a network rather than server partitioning. We disagree, as discussed above. We find that Hokanson teaches and suggests partitioning via the use of the varied storage media and do not find that these varied media require different servers as Appellants contend for the network. Hokanson discusses the database server at column 18 as cited by Appellants at page 13 of the Brief. We find this to be a teaching of a partitioned or hierarchical storage on a single server and this may also be replicated on plural database servers throughout a network. Appellants contend that the storage on different mediums for priority is not "partitioning of servers" (Br. 14). We disagree, and find that Appellants have not identified any specific definition of the term "partitioned" in the

specification or in the relevant art. Therefore, Appellants' argument is not persuasive.

Appellants argue that Hokanson fails to teach or suggest that each of the plurality of servers has both primary and secondary partitions and even if taught or suggested, then Hokanson does not teach or suggest divided and selectively distributed video assets (Br. 14). Again, we disagree with Appellants, and find that Appellants have not identified any specific definition of the term "divided and selectively distributed" in the specification or in the relevant art. Therefore, Appellants' argument is not persuasive in light of our discussion above.

As to Appellants' arguments to the combination of the teachings and that the combination teaches only partitioning a network rather than servers (Br. 15), we have addressed this above in our discussion of Hokanson and Ueno. Therefore, Appellants' argument is not persuasive, and we will sustain the rejection of claim 1.

With respect to dependent claim 2, Appellants rely upon the base argument with respect to independent claim 1 and further argue that the portion of Hokanson relied upon by the Examiner does not teach or suggest that the manager allocates the video asset to at least one of the server's primary or secondary partitions. We disagree as discussed above, and we find that the manager would migrate the video asset up or down in the hierarchy which may entail replicating or removing the asset or up or down-grading the asset to a higher

storage medium. Here, we note that a single manager on a single server may control only that server's assets, but this sufficiently teaches or suggests the invention, as claimed. Therefore, Appellants' argument is not persuasive, and we will sustain the rejection of claims 2-6.

With respect to independent claim 19, Appellants generally present the same arguments which were presented with respect to independent claim 1 and dependent claim 2 which we did not find persuasive. Similarly, we do not find these arguments persuasive with respect to independent claim 19 and dependent claims 22 and 23

With respect to dependent claims 7-9 and 24, Appellants argue that Kikinis does not teach or suggest each and every element of Appellants' invention (Br. 24). We do not find Appellants' argument persuasive. Appellants additionally rely upon the arguments made with respect to independent claims 1 and 19 which we did not find persuasive. Therefore, Appellants' argument is not persuasive, and we will sustain the rejection of claims 7-9 and 24.

With respect to dependent claim 21, Appellants contend that Kenner does not remedy the deficiency in the base combination of Ueno and Hokanson (Br. 26-27). Since we do not find a deficiency in the base combination, we will sustain the rejection of claim 21.

CONCLUSION

To summarize, we have sustained the rejection of claims 1-9, 19 and 21-24 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

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PATTERSON & SHERIDAN, LLP/
SEDNA PATENT SERVICES, LLC
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY NJ 07702